



# Personalized Learning – Flexible systems for teaching and learning opportunities to support all students

**State Board of Education Meeting  
May 12, 2015**

Use **technology and tools** strategically in learning and communicating



Use **argument and reasoning** to do research, construct arguments, and critique the reasoning of others



**Communicate and collaborate** effectively with a variety of audiences



**Solve problems,** construct explanations and design solutions



Career & College Ready  
MICHIGAN





# Personalized Learning

Intentional  
Instruction and  
Integration

Competency-  
Based  
Education

Flexible  
Learning  
Options

## Multi-Tiered Systems of Support

# Components

## Personalized Learning

- Choice
- Context
- Pacing
- Relevance
- Proficiency

## Personalized Teaching

- Collaboration
- Flexibility
- Student ownership
- Facilitation

## Educational Technology

- Access
- Customization
- Engagement
- Data use

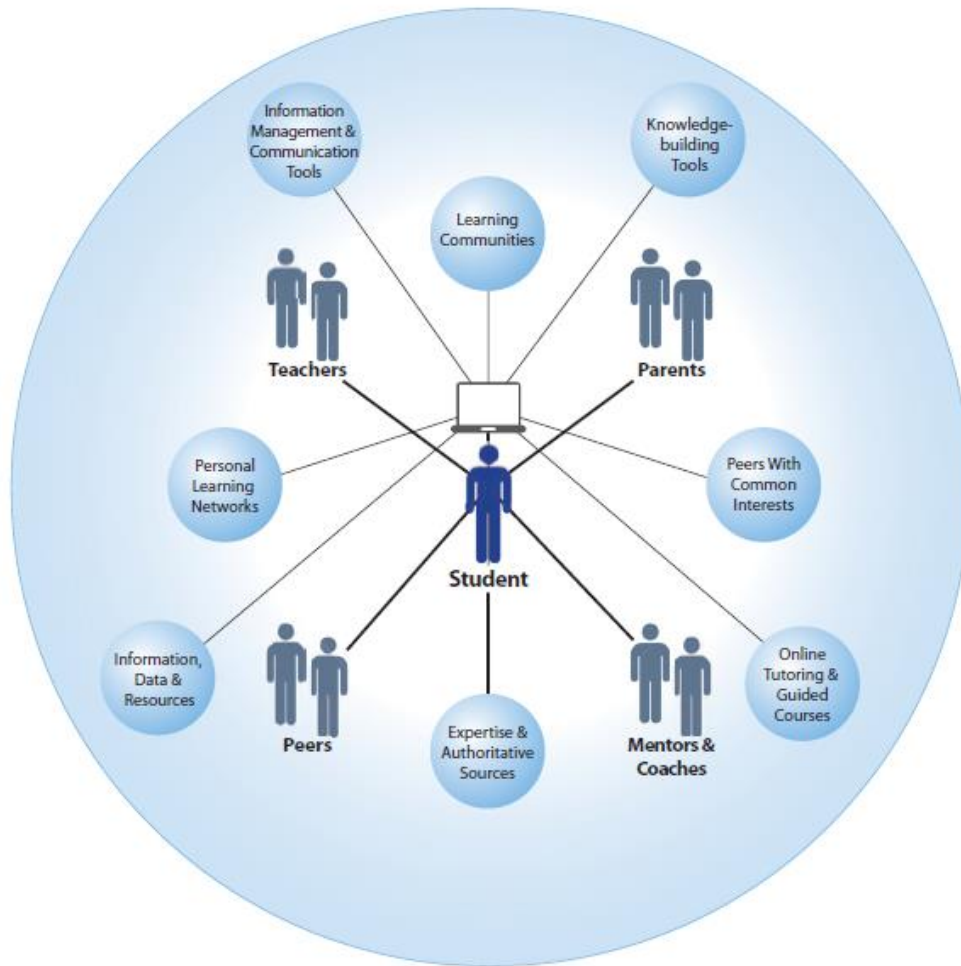
### Personalized Learning

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## Personalized Learning

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# Showcasing Michigan Examples



**CONNECT:**  
*Making Learning Personal*

Reports from the Field by the League of Innovators

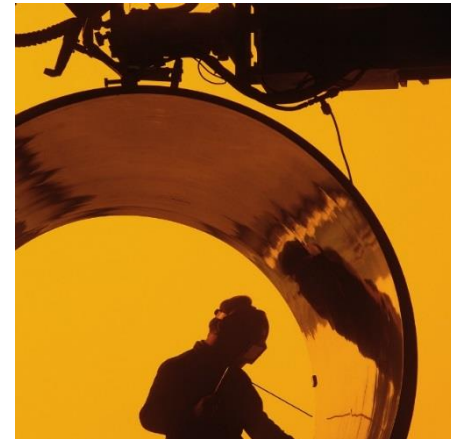
**Innovative Schools in Michigan**

edited by Stephen F. Page

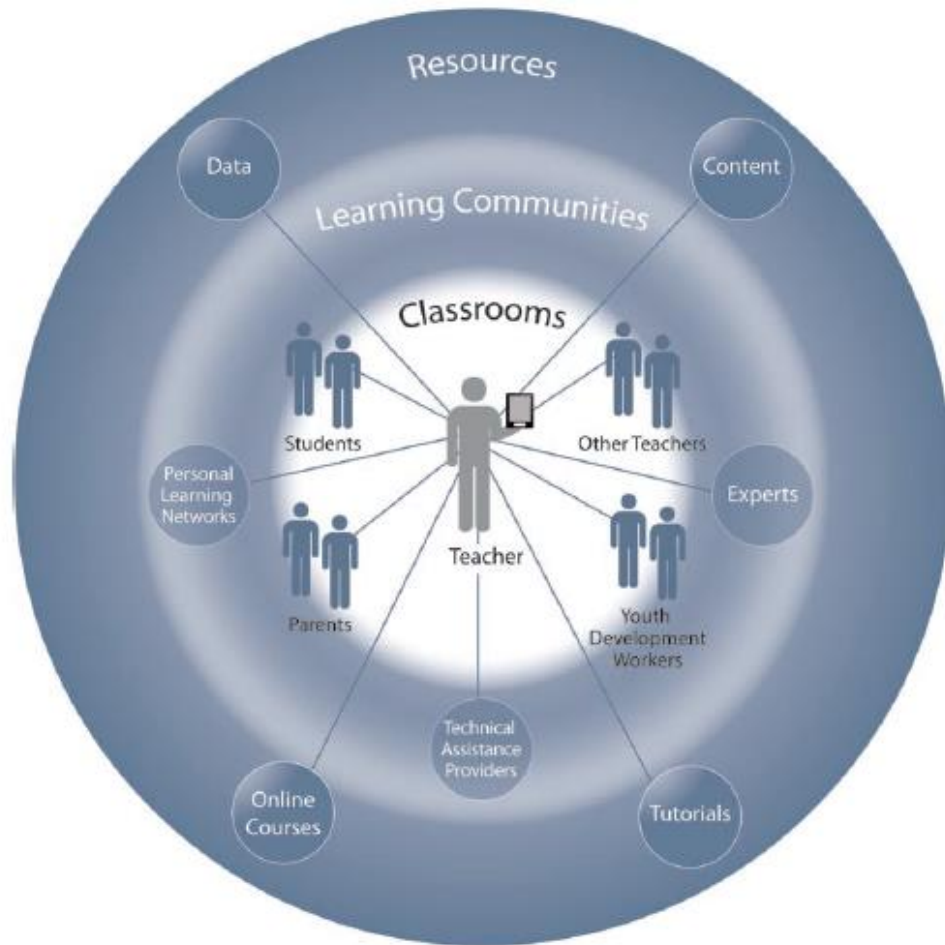
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**Personalized Learning Vignette Webinars**







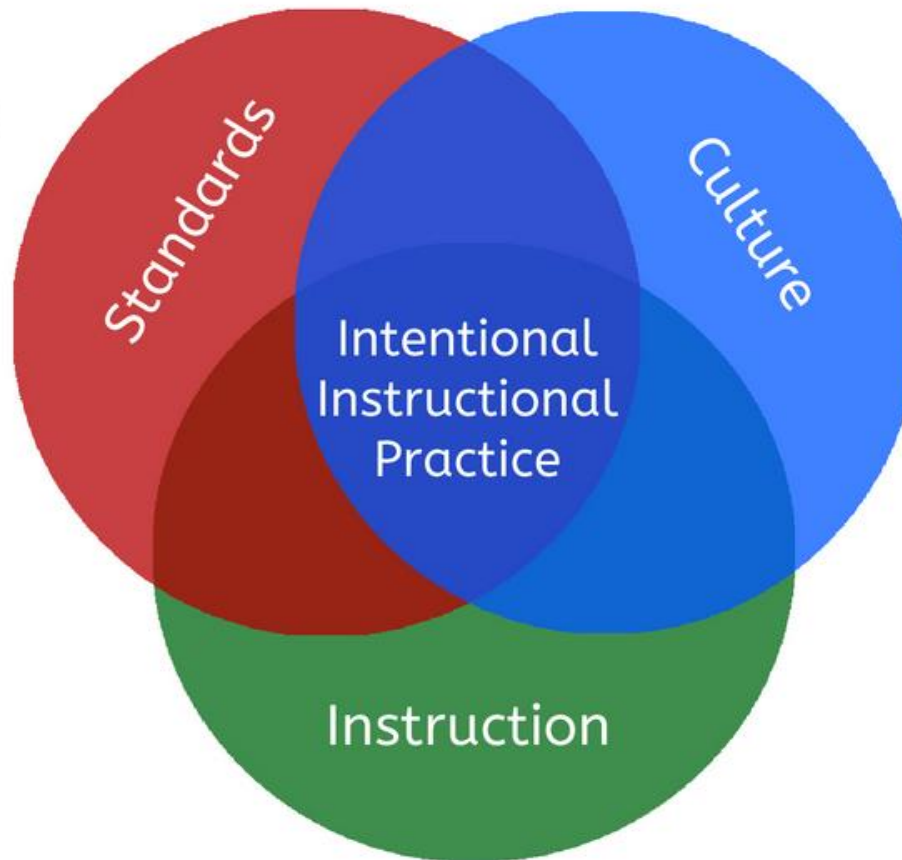
## Personalized Teaching

- Collaboration
- Flexibility
- Student ownership
- Facilitation



When **Standards**, **Instruction**, and **Culture** intersect we'll see...

Curriculum with  
Higher  
Cognitive  
Demand  
(Increased  
Rigor)  
and  
Career and  
College Ready  
Characteristics



Lessons that  
Address  
Appropriate  
Grade Level  
Standards  
and  
Include Content  
Relevant to  
Student Lives

Teaching that is Engaging, Culturally Responsive,  
and Provides for Experiential Learning

Personalized Learning

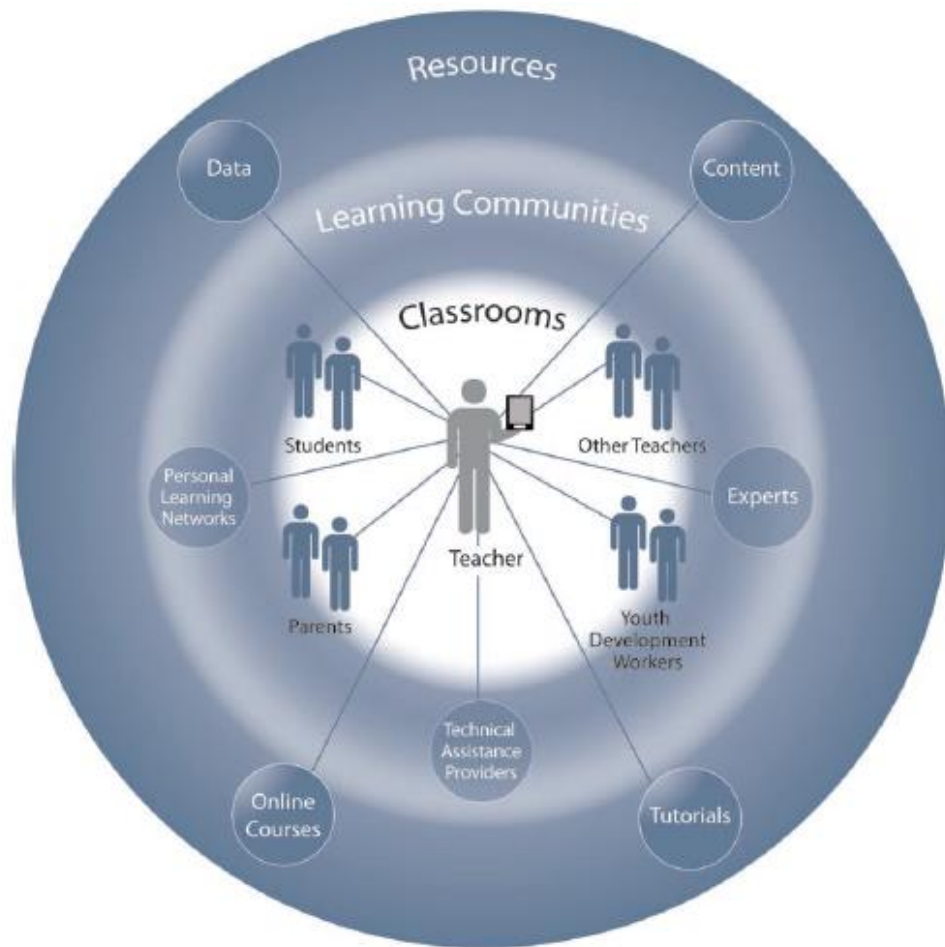
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## Educational Technology

- Access
- Customization
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### Michigan

#### DIGITAL LEARNING STATE SNAPSHOT

Michigan Virtual School, the state virtual school, served over **21,944 course enrollments** in SY 2013–14.

Public Act 196 (2014) continued Michigan's student choice program allowing students grades 6–12 to take up to two online courses per academic term without district approval.

**Nine fully online schools, or cyber charter schools**, are operating in SY 2014–15. **Seven cyber schools served 6,737 student enrollments** in SY 2013–14.

#### Availability of online learning options

##### SUPPLEMENTAL

##### FULLY ONLINE

K-5 (ES)	6-8 (MS)	9-12 (HS)	K-5 (ES)	6-8 (MS)	9-12 (HS)
					
NONE	SOME	MOST	SOME	SOME	SOME

Availability of info:

**Great**

Good

Fair

Poor

Minimal

#### Does this state have...

	Y	N
Student choice for publicly funded fully online schools?	●	
Student choice for publicly funded supplemental online courses?	●	
SVS or another publicly funded option for private / homeschool students?		●
Prior public school attendance requirement for online schools?		●
Online caps by class, school, district, or statewide?	●	
PD requirement for online teachers?		●
State approval process for online providers?		●
State approval process for online courses?		●
Online learning requirement for students?	●	
End-of-course exams?		●
Separate state reporting of online course enrollments?	●	

Students in grades 6–12 may take two online courses per academic term without district approval.

SB619 (2012) limits the number of cyber charters and their enrollments.

MI was the first state to require an online course or learning experience to graduate high school.

Districts reported 185,000 "virtual learning" enrollments in SY 2012–13.

# Online Course Quality



- Participating in Quality Matters training to bring common language and iNACOL course quality standards to online courses in Michigan.
- Monitoring course quality, participation and completion rates for online courses.



## Course: Algebra 2A Course Quality Indicators

iNACOL Online Course Quality Standards (52)			
	● = Fully Met (48)	● = Partially Met (4)	○ = Not Met (0)
Content (13)	● 13	● 0	○ 0
Instructional Design (11)	● 8	● 3	○ 0
Student Assessment (7)	● 7	● 0	○ 0
Technology (11)	● 10	● 1	○ 0
Course Evaluation and Support (10)	● 10	● 0	○ 0

Review Conducted By : Michigan Virtual School  
Date of Review : 02/03/2014  
Notes :

## Participation and Completion Rates

School Year	Enrollment Count ?	Pass Count ?	Completion Rate ?	Notes
13-14	134	92	68.7%	Enrollment data include all enrollments (21f and non-21f) for the Spring and Summer 2013-14 school year.



Traditional Systems	Competency-Based Systems
Credit based on participation and seat time	Credit based on proficiency in content standards
Content pacing dependent on lesson delivery by teacher	Content pacing variable based on individual student mastery
Reporting based on marking periods or courses	Reporting based on learning targets or competencies
Assessments measure what students know	Assessments measure what students know and can do
Content is delivered and assessed in classrooms	Content is delivered and assessed through multiple pathways including out of school activities

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## High School

Demonstrate the ability to interpret, analyze, and build functions that model real-world phenomena.

Apply statistical and probability concepts to analyze and evaluate potential decisions and strategies.

Understand the concepts of congruence, similarity, and symmetry from the perspective of geometric transformations.

## Middle School

Understand quantitative relationships including ratios, rates and proportional reasoning.

Formulate and reason about expressions and equations.

Develop statistical thinking and use to model and describe relationships between two quantities.

Use properties of shapes and space to solve problems

## Elementary School

Understanding fractions, fraction equivalence, and operations with fractions (3-5)

Multiplication and division of whole numbers (3-5)

Understand place value, and addition and subtraction of whole numbers (K-2)

Understanding linear, area and volume measurement (1-5)

Describing and analyzing geometric figures (K-5)



# Mathematics Learning Progression Example

**Demonstrate the ability to interpret, analyze, and build functions that model real-world phenomena.**

**Summative Assessment – Grade 11**

**Interim Assessment Blocks (IAB)  
Algebra & Functions**

Linear  
Functions

Quadratics

Exponentials

Polynomials

Rationals

Radicals

Trigonometric

**Common Core Domain Supports**

- Quantities
- Interpreting Functions
- Linear Models
- Building Functions
- Reasoning w/Equations & Inequalities
- Creating Equations

- Interpreting Functions
- Building Functions
- Complex Numbers
- Seeing Structure in Expressions
- Reasoning w/Equations & Inequalities

- Real Number System
- Seeing Structure in Expressions
- Creating Equations
- Reasoning w/Equations & Inequalities
- Interpreting Functions
- Building functions

- Real Number Systems
- Complex Numbers
- Seeing Structure in Expressions
- Arithmetic w/Polynomial & Rational Expressions
- Reasoning w/Equation & Inequalities

- Real Number Systems
- Seeing Structure in Expressions
- Reasoning w/Equations & Inequalities
- Interpreting Functions
- Building Functions

- Interpreting Functions
- Trigonometric Functions

HOW DO WE **RECOGNIZE** AND **VALUE**  
THE WAY WE **LEARN** TODAY?

MDE is the **only** state department **actively** looking at ways to support **open badges** as an alternative to traditional modes of reporting.

# What is an open badge?

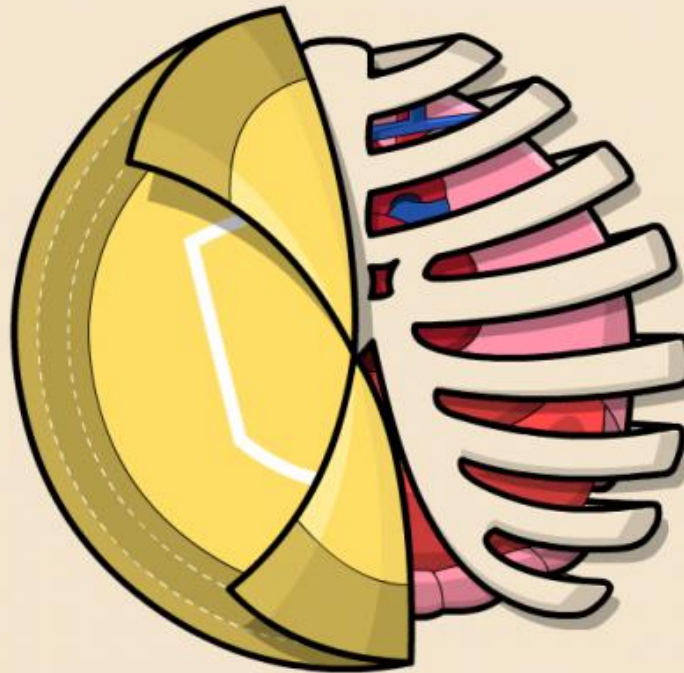
Open Badges are:

- **Free and Open**
- **Transferable**
- **Stackable**
- **Evidence-based**





Badge image



## OPEN BADGES ANATOMY

Badge name

Description

Criteria

Issuer

Evidence

Date issued

Standards

Tags



*Be*  
**SUMMER**  
*smart*







### Reach My Goals: Am I On Track for Career and College Readiness?

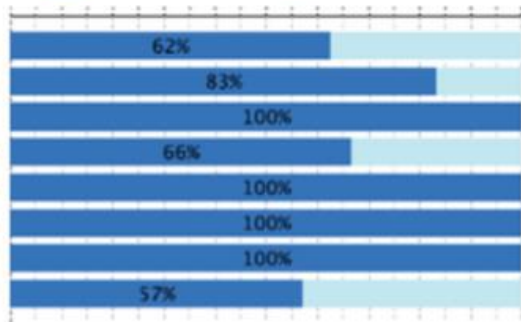
Student Name  
School Name  
Current Grade Level

#### High School Completion

A - G Requirements:

% of Credits Earned

% of Credits Needed



HS Credit Summary:

Credits Earned: 165.0

Credits in Progress: 30.0

Credits Required: 220.0

GPA:



Badges Earned

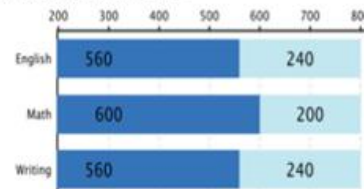
#### College Readiness

Early Acceptance Program (EAP) for CSU

Math: No Data English: College Ready

The EAP indicates if you are ready for college-level coursework in English and math at the end of your junior year of HS, according to CSU. Data is taken from the STAR ELA/Math results.

SAT Results (Maximum Score)



Based on SAT You are On Track For:

Reading: 560-CSU Ready

Math: 600-CSU Ready

Writing: 560-No Suggestions

SAT Avg Median Score\*

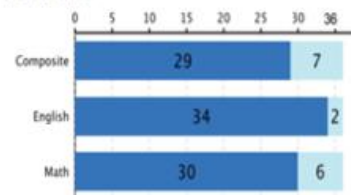
Ivy: 720  
Top U: 715  
UC: 570  
CSU: 485

Ivy: 740  
Top U: 730  
UC: 620  
CSU: 505

Ivy: 740  
Top U: 710  
UC: 585  
CSU: n/a

Source: National Center for Educational

ACT Results:



ACT Avg Median Score\*

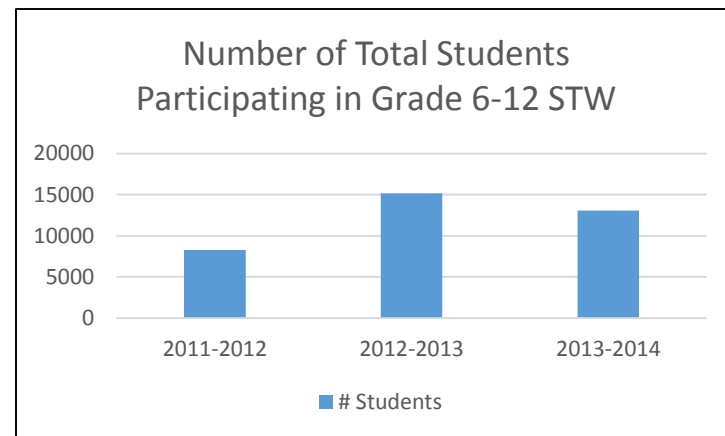
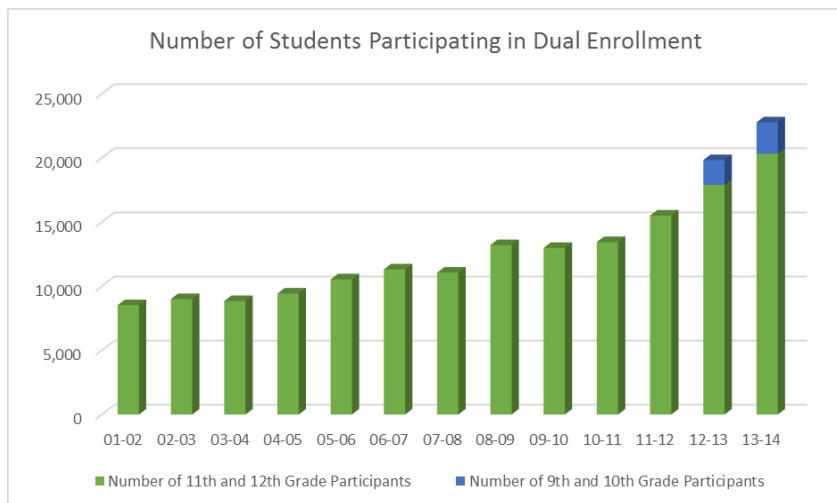
Comp: 33  
UC: 26  
CSU: 22

Ivy: 33  
Top U: 33  
UC: 25  
CSU: 21

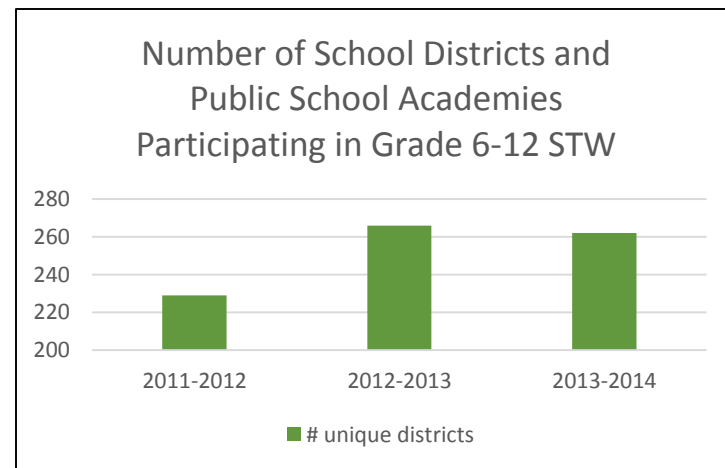
Ivy: 34  
Top U: 33  
UC: 25  
CSU: 20

NOTE: This report does not exist yet. It is a prototype.

# Flexible Learning Options



Personal Curriculum		
School Year	Total PCs	LEAs with PC Use
2010-2011	3,884	113 (13.1%)
2011-2012	4,140	126 (14.5%)
2012-2013	4,509	136 (15.3%)
2013-2014	4,994	174 (19.1%)



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# MULTI-TIERED SYSTEM OF SUPPORTS (MTSS)

MEETING THE ACADEMIC AND BEHAVIORAL HEALTH NEEDS OF ALL STUDENTS

## ESSENTIAL ELEMENTS WITHIN ELEMENT CLUSTER AREAS

### INSTRUCTION AND INTERVENTION

- Effective instruction for all children
- Early Intervention
- Multi-tiered model of instruction and intervention

### PROBLEM SOLVING

- Collaborative problem solving model

### DATA/ASSESSMENT

- Monitor progress
- Data based decision making
- Use assessments for three purposes

### STAKEHOLDER ENGAGEMENT

- Engage parents and community

### IMPLEMENTATION OF EVIDENCE-BASED PRACTICES

- Research based core curriculum
- Research based, valid interventions and instruction
- Implement with fidelity



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# An Example – Cedarville high School STEM Class





# Contact Information

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